

WCPCG-2010

Relationship between fear of childbirth and anxiety among Turkish pregnant women

Öznur Körükcü^a *, Mehmet Ziya Fırat^b, Kamile Kukulu^c

^a Research Asistant, MsC, Department of Maternity and Gynecology Nursing, Antalya School of Health, Akdeniz University, Antalya, Turkey

^b Proffesor Doctor, PhD, Biometry and Genetics Unit, Faculty of Agriculture, Akdeniz University, Antalya, Turkey

^c Associate Professor, PhD, RN, Department of Maternity and Gynecology, Nursing Antalya School of Health, Akdeniz University, Antalya, Turkey

Received January 2, 2010; revised February 3, 2010; accepted February 29, 2010

Abstract

The aim of this study is to determine the relationship between fear of childbirth and anxiety levels of Turkish population. 49.4% of the pregnant women were nulliparous, and 50.6% were multiparous. 41.1% of them have clinical level of fear of childbirth. As a result of correlation analysis, a significant relationship was determined between fear of childbirth and anxiety ($r=0.42$, $p<0.01$). According to the findings, fear of childbirth was positive and moderate correlated with anxiety. Fear of childbirth is a major problem during pregnancy. Anxiety and fear of childbirth must be handled carefully by health care professionals.

© 2010 Elsevier Ltd. Open access under [CC BY-NC-ND license](#).

Keywords: Fear of childbirth, anxiety, W-DEQ, BAI

1. Introduction

Psychologically, pregnancy consists of consecutive interdependent phases. During the first trimester, the previous identity of the woman is threatened and unconscious anxiety is common. This phase is also characterized by sorrow about losing one's own childhood and fear of regression. During the second trimester, the woman adapts to the prospective motherhood and conceptualizes the child as an independent being. Unconscious anxiety is reduced and replaced by a rather personalized worry about the well-being of the child. The final phase of pregnancy is the time of active preparation for the birth, the infant and the new life situation. Emotionally, social withdrawal with impaired interest to outside upheavals helps the woman to concentrate on giving birth (Simpson and Creen, 2008; Hofberg and Ward, 2004).

Fear of childbirth is conceptualised along a continuum, with women who are almost free of fear at one end, and those women with severe or disabling fear at the other (Fisher, Hauck and Fenwick, 2006; Erozkhan, 2009). Research demonstrates that there is a high prevalence of fear associated with childbirth. Although up to 80% of women identify common concerns, just over 20% report more specific or intense worries with between 6–10% of women

* Kamile Kukulu. Tel.: +90 242 310 6103 ; fax: +90 242 226 1469.

E-mail address: kkamile@akdeniz.edu.tr.

experiencing severe fear of labour and birth that is dysfunctional or disabling (Eriksson, Jansson and Hamberg, 2006). Predictors of fear of childbirth are manifold. Fear of childbirth differs among women who have previously given birth (parous) when compared with women who are expecting their first child (nulliparous). Nulliparous women report higher levels of fear of childbirth on average than parous women (Heimstad et al., 2006).

Studies report that women's fear related to childbirth is multidimensional and detailed, concerned with pain, obstetric injuries, their own incapability, loss control, insufficient support and loss of the baby's or their own life and being left without assistance during labour (Eriksson, Jansson and Hamberg, 2006; Sjögren, 1998).

1.1. The purpose of the study

The purpose of this study is to determine the relationship between fear of childbirth and anxiety levels of Turkish population.

2. Methodology

2.1 Study population

A total of 660 healthy women with normal pregnancies were recruited in this study. Inclusion criteria included visiting Akdeniz University Hospital, Atatürk State Hospital, Antalya Research and Education Hospital for routine controls, being at gestational ages of between 28 and 40 weeks with a healthy baby, being at ages higher than 15 and lower than 45 years. Exclusion criteria included having a chronic illness, a sexually transmitted disease, complications during pregnancies and an experience of cesarean section in previous pregnancy/pregnancies.

2.2 Measures

The socio-demographic questionnaire, Wijma Delivery Expectancy/Experience Questionnaire (W-DEQ), and Beck Anxiety Inventory (BAI) have been applied for data collecting process. The W-DEQ has been developed to measure a construction of fear related to childbirth during pregnancy and by asking the woman about her expectations before the delivery by means of the woman's cognitive appraisal regarding the delivery process and its first psychometric properties were evaluated by Wijma and colleagues (1998). The W-DEQ is a validated 33-item questionnaire, giving a minimum score of 0 and a maximum score of 165. A higher score indicates a more intense fear of childbirth. The W-DEQ was formally translated into Turkish and the validity, reliability and psychometric properties of the scale were evaluated for a Turkish population by Körükcü et al (2009). Both the split-half correlation coefficient (0.90) and the alpha coefficient (0.89) are well above the 0.70 criterion for the split-half reliability and internal consistency reliability.

BAI was used to measure physical, emotional and cognitive aspects of anxiety and fear of losing control. The BAI is 21-item self-report measure and responses on each item range from 0 (*not at all bothered*) to 3 (*severely bothered*), with a possible range of total scores from 0 to 63. The higher points of this scale reflect higher level of anxiety. As part of the development of the BAI, Beck and Steer, (1991) obtained internal consistency and test-retest reliability estimates of 0.92 and of 0.75, respectively. The BAI was shown to be applicable for Turkish population by Ulusoy et al. (1998).

2. 3 Statistical analysis

All calculations were carried out by means of the SPSS program (Statistical Package for Social Sciences). Pearson product-moment correlations were used for determining the relationship between fear of childbirth and anxiety. In this study, analysis of variance was calculated to determine the relationship between the fear groups.

3. Results

A total of 660 pregnant women whose gestational age ranged from 28 to 40 weeks were employed. About 49.4% of the pregnant women were nulliparous (n=326), and 50.6% were multiparous (n=334). 30.6% of the women's age

ranged between 15 and 19, %25 were between 25 and 29 and 5.1% were between 35 and above. While 32.4% of them were in gestation week between 31 and 33, 47.3% were in gestation week between 34 and 37. With regard to educational level, 43.5% completed primary school, 44.8% completed secondary school and 11.7% completed a higher education. 32.7% of the participants experienced abortion, 16.5% miscarriage, 3.0% stillbirth.

Two hundred and seventy one women met the criteria of fear of childbirth in the clinic range using the cut off score ≥ 85 on the W-DEQ. When we compared W-DEQ score between first time mothers (nulliparous) and multiparous, fear of childbirth is greater among participants who were expecting their first child. While 46.6% of nulliparous had severe fear of childbirth, this rate was 40% among multiparous. As a result of multiple comparisons statistically significant difference was found between all fear groups ($F=609.60$; $p<0.05$) (Table I).

Table I. The analysis of variance of W-DEQ

Fear Scores	N	Mean	Std. Deviation	F	P
W-DEQ score ≤ 37 Mild fear of childbirth	6	0.84	0.31	609.60	0.00
W-DEQ score = 38-65 Moderate fear of childbirth	96	1.72	0.20		
W-DEQ score = 66-84 Severe fear of childbirth	287	2.32	0.15		
W-DEQ score ≥ 85 Clinic fear of childbirth	271	3.08	0.44		

Pearson correlation coefficients were calculated to examine the relationship between fear of childbirth and anxiety. As a result of correlation analysis, a significant relationship was determined between fear of childbirth and anxiety ($r= 0.44$, $p<0.01$). According to the findings, fear of childbirth was positive and moderately correlated with anxiety.

Conclusions and Recommendations

The main goal of our study was to investigate how severely fear of childbirth is distributed in a representative pregnant population categorised according to parity. We found that nulliparous women had higher scores of fear of childbirth than parous women and those scores are higher.

This is a clinical problem. Also, fear of childbirth during pregnancy correlates positively with anxiety.

Women suffering from childbirth fear seem to be in need of better counselling and support. There is need to study whether there are certain factors expressing fear and anxiety more clearly and also to study how effective counselling and care during pregnancy and childbirth should be carried out. The characteristics of women not suffering from childbirth fear, but requesting an elective caesarean section, and reasons for their request, clearly need further study.

References

- Beck, A. T., & Steer, R. A. (1991). Relationship between the Beck Anxiety Inventory and the Hamilton Anxiety Rating Scale with anxious outpatients. *Journal of Anxiety Disorders*, 5, 213-223.
- Eriksson, C., Jansson, L., & Hamberg, K. (2006). Women's experiences of intense fear related to childbirth investigated in Swedish qualitative study. *Midwifery*, 22, 240-248.
- Erozkan, A. (2009). The relationship between humour styles and shyness: an investigation of Turkish university students. *Cypriot Journal of Educational Sciences*, 4, 2.
- Fisher, C., Hauck, Y., & Fenwick J. (2006). How social context impacts on women's fears of childbirth: A Western Australian example. *Social Science & Medicine*, 63, 64-75.
- Heimstad, R., Dahloe, R., Laache, I., Skogvoll, E., & Schei, B. (2006). Fear of childbirth and history of abuse: implications for pregnancy and delivery. *Acta Obstetrica Gynecologica Scandinavica*, 85, 435-440.
- Hofberg, K., & Ward, M.R. (2004). Fear of childbirth, tocophobia, and mental health in mothers: the obstetric-psychiatric interface. *Clinical Obstetrics and Gynecology*, 47, 527-534.
- Köriükcü, Ö., Firat, M.Z., & Kukulü K. The reliability and validity of the Turkish version of the Wijma Delivery Expectancy/Experience Questionnaire with pregnant women (In publication).
- Simpson, K.R., & Creen, P.A. (2008). *AWHONN perinatal nursing*, (pp.115-120) Philadelphia: Lippincott.
- Sjögren, B. (1998). Fear of childbirth and psychosomatic support. *Acta Obstetrica Gynecologica Scandinavica*, 77, 819-825.
- Ulusoy, M., Şahin, N.H., & Erkmen, H. (1998). Turkish version of the Beck Anxiety Inventory: Psychometric properties. *Journal of Cognitive Psychotherapy: An International Quarterly*, 12, 23-29.

- Wijma, K., Wijma, B., & Zar, M. (1998). Psychometric aspects of the W-DEQ; a new questionnaire for the measurement of fear of childbirth. *Journal of Psychosomatic Obstetric and Gynecology*.